

**BY ORDER OF THE COMMANDER
908TH AIRLIFT WING**

908 AIRLIFT WING INSTRUCTION 21-113

10 FEBRUARY 2012



Maintenance

**COMPOSITE TOOL KIT (CTK) AND
ELECTRONIC DEVICE PROGRAM**

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This instruction implements AFD 21-1, *Air and Space Maintenance*. It establishes procedures and assigns responsibilities for maintaining, monitoring and controlling an effective Composite Tool Kit (CTK) Program for all tools which are dispatched to the flight line. It applies to all 908 AW personnel. Refer any recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) at the 908 MXG/MXQ, at Maxwell AFB AL. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located <https://www.my.af.mil/afrims/afrims/afrims.rims.cfm>

This is the initial publication of 908th Airlift Wing Instruction (908 AWI21-113)

1. 908 MXG Responsibilities:

- 1.1. The MXG/CC has overall responsibility for the Tool Management Program in the Wing and will ensure the Wing strives to meet the objectives of a sound CTK program, as directed by AFI 21-101 and applicable MAJCOM supplements.
- 1.2. Squadron Commanders have responsibility for providing oversight to the CTK program within their squadrons.

1.3. All MXG Flight Chiefs are responsible to manage and implement a CTK program within their Flights. They approve and sign the Master Inventory List (MIL) and designate a primary and alternate CTK custodian in writing.

1.4. All sections will account for individually issued equipment and personal protective equipment (PPE) using appropriate control measures IAW sections 2, 8 and 9 of this AWI and chapter 10 of AFI 21-101.

2. 908 MXG Tool Program:

2.1. MXG will use the Tool Accountability System -TC MAX.

2.1.1. All dispatched tools, equipment and PPE will be controlled using TC MAX.

2.2. All other sections within the 908 AW will have a tool control program for tools and items that are dispatched to flight line and aircraft maintenance areas to include the following as a minimum.

2.2.1. A master listing of all tools equipment and personally issued items.

2.2.2. A means of documenting an annual inspection and inventory of non-CA/CRL items.

2.2.3. A mapping of markings or Equipment Identification Designators (EID).

2.2.4. A letter of designation for the CTK custodian.

2.2.5. A daily dispatch control log to track who is responsible for tools and equipment of that work center.

2.3. The following forms will be used; AFRC Form 174 *Lost Tool/Object Report*, AFRC Form 177 *Consolidated Tool Kit Inventory and Control Log* and AFRC Form 175 *Missing/Removed Tools and Equipment*.

3. 908 MXG Accountability/Inventory Requirements:

3.1. Tool room and tools will be locked or monitored at all times to prevent tools from being used without authorization.

3.2. Document inventories in TC MAX. If TC MAX is unavailable, use the appropriate form. (***AFRC Form 177 Consolidated Tool Kit Inventory and Control Log***, ***AFRC Form 175 Missing/Removed Tools and Equipment***, ***AFRC Form 174 Lost Tool/Object Report***, ***AF form 1297, Temporary Issue Receipt***)

3.3. Annual tool inventories will be documented on an AFRC 177 *Consolidated Tool Kit Inventory and Control Log* or TC-MAX product equivalent.

3.4. CTKs located aboard aircraft will be inventoried and controlled in the following manner:

3.4.1. At home station, a crew chief will sign out the key to the CTK using TC MAX. When the box is opened and inventoried, the crew chief will then sign the AFRC Form 177 accepting the box. A different crew chief will sign in the CTK on the AFRC Form 177 and TC MAX, and then return the key to its storage location.

3.4.2. When the aircraft is accepted by the flight crew for local/cross country flights and a crew chief/Mission Essential Personnel (MEP) is not on the flight, one member of the

flight crew will inventory and sign the AFRC Form 177 accepting responsibility for the CTK. When it returns to home station, a crew chief will inventory and sign in the CTK on the AFRC Form 177 and TC MAX, and then return the key to its storage location.

4. 908 MXG Replacement, Expendable, Consumable and Hazardous Material (HAZMAT) items stored in a CTK:

4.1. All HAZMAT will be stored in accordance with the approved 42nd Air Base Wing HAZMAT management plan. Contact the 908th Environmental Coordinator for guidance.

4.2. Flight/Shop Chiefs will be responsible for ordering, purchasing and managing all tools required in their section. Personnel will notify their Flight/Shop Chief immediately upon discovery of an unserviceable tool. Personnel will remove the unserviceable tool, document the AFRC Form 175 and update the tool status in TC MAX. The Flight/Shop Chiefs, or a designated person, will replace the tool as soon as possible, document the AFRC Form 175 and update the tool status in TC MAX.

4.3. The Flight/Shop Chief or designated people in each work center are allowed to procure tools.

4.4. Expendable and consumable tools will be controlled by the Shop Chief or CTK custodian and exchanged on a one for one basis. TC MAX will be updated accordingly.

5. 908 MXG Warranty Tool Program:

5.1. Snap-On Tools representatives will replace broken tools at the shop when called by the Flight/Shop chief. The Matco Tool policy is to send the tools back to the manufacturer for replacement. Craftsman tools will be exchanged at an authorized dealer. Flight/Shop chiefs will ensure positive control over the management of the Warranty Tool Program.

6. 908 MXG Transfer of tools at job site:

6.1. If it becomes necessary to transfer a CTK/Support Equipment (SE) on the job site, the AFRC Form 177 will be used and both individuals will accomplish a joint inventory.

6.1.1. The on-coming technician will perform an inventory of the CTK/SE and document the AFRC Form 177. This will relieve the responsibility of the out-going technician from this CTK/SE.

6.1.2. When the maintenance/task is completed, the on-coming technician will return the CTK/SE to the work center and have a second individual sign in the CTK/SE on the AFRC Form 177.

6.1.3. The second individual will then sign the CTK/SE in using TC MAX and return the items to their storage location.

7. 908 MXG Lost tool/item Procedures:

7.1. If a tool/item is lost in a shop or hangar, report the lost tool to the shop supervisor or MOC.

7.2. If the tool/item is lost on the aircraft or flight line report to the Pro Super/ Expediter or MOC.

7.3. The MOC will accomplish the Lost Tool checklist.

7.4. Pro Super/ Expediter and MOC will coordinate with each other to ensure a JCN and Red-X discrepancy is entered in the aircraft forms to include last known location and description of tool/item and ensure an AFRC Form 174 *Lost Tool/Object Report*, or TC MAX generated form is initiated.

7.5. Quality Assurance will enter all lost tool reports into the QANTTAS Program for trend and tracking purposes.

7.6. If the tool/item is not found, only an individual authorized and identified on the special certification roster (SCR) to clear the red "X" for MISSING TOOLS/ITEMS will clear the Red-X.

7.7. Lost Rags will be treated the same as a lost tool and personnel will use the same procedures.

7.8. If a tool/item is found missing after an aircraft has taxied or taken off, a description of the tool and suspected area where the item was lost will be reported to the Command Post to notify the aircrew. The Aircraft Commander (AC) will then determine what action to take on a case-by-case basis

7.9. If a tool/item is discovered missing off station, the MEP or flight crew will enter a Red X in the aircraft forms and inform the AC of the situation. If at a C130 support base, the aircrew will inform the local MOC and QA office of the condition. The MEP or flight crew will immediately perform a lost tool/item inspection. If the tool/item is recovered, the MEP or flight crew will clear the Red X in accordance with TO 00-20-1. If the tool/item cannot be recovered the A/C will coordinate with the MXG/CC to determine the procedures to be followed.

8. 908 MXG Assignment of Equipment Identification designators (EID):

8.1. To identify items tracked by TAS, the standard nine-digit worldwide identification (WWID) code will be used.

8.1.1. The letters **I**, **O**, or **Q** will not be used for any identification of tools in the TAS system. This will eliminate the confusion with numbers **0** (zero) and **1** (one).

8.1.2. The letters **X** or **x** will only be used to de-etch old markings.

8.2. The first TWO digits will identify Maxwell AFB, AL as the location.

8.2.1. T7 – 908 AW Maxwell AFB, AL.

8.3. The THIRD & FOURTH digits will designate the work center. (See [Attachment 2](#))

8.4. The FIFTH and SIXTH digits will identify the storage location.

8.4.1. These positions will be assigned by the TAS Representative in each flight/shop.

8.4.2. **EXCEPTION:** Dispatchable CTKs will use the first four (4) digits, followed by four (4) zeroes, then an ALPHA character will be the last digit (Example: T7AR0000A).

8.4.2.1. All items inside a Dispatchable CTK (i.e., T7AR0000A) will be marked T7ARA, dropping the zeroes, while the outside of the CTK will have the complete 9-digit WWID number.

8.5. Individual Issue Equipment ONLY: The FIFTH digit will be a **Z**. The SIXTH digit will be identified as **K** for kneepads, **W** for whistles, **M** for miner's lights, **H** for headsets, **G** for goggles, or **R** for reflective belts (i.e. T7ARZH001; this identifies the Individual Issue item is from Maxwell, Aero Repair Shop, Individual Issue Equipment item, headset and the assigned 3 digit sequence number). Each flight's TC MAX Representative will assign sequential 3 digit numbers for each piece of Individual Issue equipment within each respective sixth digit code. Individuals will then sign out as "Long Term Issue (LTI)" the required individual equipment items via TC MAX.

8.5.1. All Individual Issue Equipment will be inventoried during the Annual CTK inventory performed by the Flight/Shop Chief or CTK custodian. Each item will then be re-issued to the individual for the maximum of one (1) year. number assigned by the Shop's TC MAX Monitor (i.e., T7ARTM___ for Aero Repair, T7AGTM___ for AGE, etc).

8.6. Mobility Technical Orders ONLY: The SIXTH digit will be identified by an **M** followed by a 3-digit sequence number assigned by the Shop's TC MAX Monitor (i.e., T7ARTM___ for Aero Repair, T7AGTM___ for AGE, etc).

8.7. Aircraft Technical Orders ONLY: The FIFTH digit will be a **T**; SIXTH and SEVENTH digits will be the last two (2) of the tail number; the EIGHTH and NINTH digits will be the assigned sequence number (i.e. T7FLT3501).

8.7.1. Aircraft G-Files will be added to the Aircraft tool box CTK MIL.

8.8. Electronic Tools (E-Tools) ONLY: The FIFTH and SIXTH digits will be identified by an **E** and a **T** followed by a 3-digit sequence number assigned by the Shop's TAS Monitor (i.e. T7GCET001).

8.8.1. All E-Tools (laptop computers, hand-held devices, electronic "tablets", etc.) will be controlled and issued as support equipment.

8.9. The remaining sections or shops within the unit will use the last **FIVE** digits as tool and equipment location identifiers. Each shop will designate these locations in the TAS program as it applies to their respective work center.

9. 908 MXG Issue and control of individually issued Personal Protective Equipment (PPE):

9.1. Items of PPE to be tracked in tool control program are:

9.1.1. Headsets (David-Clarks) and/or Ear defenders

9.1.2. Reflective belts

9.1.3. Safety glasses or goggles

9.1.4. Others as required to prevent FOD hazards as examples: whistles.

9.2. These items will be marked with an EID as per paragraph **8.5** of this AWI.

9.3. Items kept in tool rooms will be shadowed and have an assigned location according to tool room map.

9.4. PPE will be inventoried as all tools are annually and documented as part of the annual inspection.

10. 908 MXG Rag Control:

10.1. Flight/Shop Chiefs are overall responsible for the rag control program within their flights.

10.2. Un-issued rags (dirty and clean) will be secured in locked containers.

10.3. All rags will be issued and controlled through a CTK Monitor. Rags will be issued using TC MAX or on a control log (AFRC Form 177), hand receipt (AF Form 1297) if TC MAX is unavailable.

10.4. Unused rags will be returned to the work center and contaminated rags will be disposed of in accordance with the approved 42nd Air Base Wing HAZMAT management plan. Contact the 908th Environmental Coordinator for further guidance.

11. 908 MXG Procurement of Tools:

11.1. Government Purchase Card (GPC) holders or the normal base supply system, are the only authorized means of replacing tool(s) within the work centers.

12. 908 MXG Local Manufacture Tools and Equipment:

12.1. Locally Manufactured Tools and equipment are developed using the procedures outlined in AFI21-101 and 908 MOI 21-9. These items are controlled through normal CTK procedures. If local manufactured tool/equipment is dispatchable it must be accounted for in TCMAX.

13. 908 MXG Depot Teams, Factory Representatives, and CFTs:

13.1. All maintenance technicians not assigned to the 908th AW will maintain positive control of tools/equipment IAW this AWI and AFI 21-101 Chapter 10, while performing maintenance on unit owned aircraft. This will include inventory procedures, accountability checks and proper documentation of such.

13.2. All Depot Teams, Factory Representatives and Contract Field Teams will attend a tool control briefing by the 908th MXG Quality Assurance office prior to performing maintenance on unit owned aircraft.

13.3. If a tool and/or piece of equipment become lost by Depot CFT team, lost tool procedures in Section 7 of this instruction & AFI 21-101 will be followed.

14. 908 MXG Access to tool room and tools:

14.1. Work centers that do not have tool rooms will provide security measures that restrict access to tools and prevent tools being removed without authorization.

14.1.1. Lockable bins and cables are acceptable.

15. 908 MXG Two or More Shops working from the same Tool Room:

15.1. More than one shop can work from the same tool room or cage provided they do not share like equipment identification numbers in TC MAX.

15.2. For quick identification purposes, sections should make every attempt to keep their equipment separate in the storage area.

15.3. When a shop has a toolbox or special tool sub located in ISO's tool room or cage, these items will be controlled and issued by the owning work centers in TC MAX and AFTO FORM 177.

16. 908 MXG Crash Damaged/Disabled Aircraft Recovery (CDDAR) Tool Program:

16.1. The Crash Recovery trailer and equipment will be maintained as a CTK.

16.2. Positive control is required in the form of inventories at the start and stop of a procedure or at a minimum, daily when in use. **TC-MAX** Inventories along with AFRC 177's will be kept with CDDAR equipment and used during event.

16.3. Operating stock/materials need a master listing or other type of positive control.

17. 908 MXG Second Party sign in:

17.1. CTKs used on aircraft scheduled for evening flights will be inventoried and signed off (AFRC Form 177) by someone working on the aircraft. At the start of the next shift the CTK will be inventoried and signed in before being re-issued.

17.2. In circumstances such as a single person shift/shop, the CTK will be inventoried and signed in by an individual from another area. (IE: crew chief, expediter, another person from same shift)

18. 908 MXG TC MAX and Computers in the Tool Room:

18.1. One computer per work section should be dedicated to TC MAX. The computer will have enough capacity to operate TC MAX. An external device (i.e. hard drive, floppy drive, CD drive) is required to "backup" program files.

18.2. Any computer issues should be addressed to the unit's client service technician..

18.3. Any issues with the TC MAX program should be addressed to the shops CTK monitors.

19. 908 OG Responsibilities:

19.1. The 357 AS will implement a tool control program.

19.1.1. IAW AFI 11-2C-130 Vol 3, the tool control program is contained in AFI 11-2C-130V3_908AWSUP1.

19.2. The 908 OSS/AFE will implement a tool control program.

19.2.1. IAW AFI 11-301V1, the tool control program is contained in 908 OG OI 11-301.

20. 25 APS Responsibilities:

20.1. The 25 APS will implement a tool control program.

20.2. Aerial Port tools will be signed out by the technician using the item. When the item is no longer needed or being used that technician will turn in the item and have another technician sign the tool kit and/or equipment back in.

20.3. Should a tool be discovered missing, aircraft will remain on the ground until tool is accounted for. Report the missing tool to MOC, 25 APS.

21. Electronic Communication Devices.

21.1. Use of electronic devices by the 908 MXG will be IAW AFI 21-101, Section 1.13.1.

21.2. Use of electronic devices by the 908 OG will be IAW AFI 11-203V3 and AFI 11-2C-130V3.

BRETT J. CLARK, Colonel, USAFR
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

908 MOI 21-9, *Local Manufacture*, 7 Oct 2009

908 OG OI 11-301, *Aircrew Flight Equipment Policy And Procedures*, 25 Jun 2009

AFI 11-2C-130, Vol. 3, *C-130 Operations Procedures*, 14 March 2006

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 29 Jun 2006

AFI 11-301 Vo1 1 *Aircrew Flight Equipment (AFE) Program*, 25 Feb 2009

TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documents, Policies, and Procedures*, 30 Apr 2003

TO 32-1-101, *Use and Care of Hand Tools and Measuring Tools*, 14 Sep 2007

Adopted Forms

22.1. AFRC Form 174, *Lost Tool/Object Report*

22.2. AFRC Form 177, *Sign in and out*

22.3. AFRC Form 175, *Missing/ Removed Tools and Equipment*

22.4. AF Form 614, *Charge Out Record*

22.5. AF Form 1297, *Temporary Issue Receipt*

Abbreviations and Acronyms

AC—Aircraft Commander

CDDAR—Crash Damaged/Disabled Aircraft Recovery

CTK—Composite Tool Kit

EID—Equipment Identification Designators

GPC—Government Purchase Card

HAZMAT—Hazardous Material

JCN—Job Control Number

MIL—Master Inventory List

MEP—Mission Essential Personnel

MOC—Maintenance Operations Center

PPE—Personal Protective Equipment

QA—Quality Assurance

SCR—Special Certification Roster

SE—Support Equipment

TC MAX—Tool Accountability System

WWID—Worldwide Identification

Attachment 2

WORLDWIDE IDENTIFICATION CODES

Unit	Shop	Code
Accessories Flight	Electro/Environmental	EE
	Fuel Cell	FC
	Hydraulics	HY
Maintenance Flight	ISO/Phase	PH
	Aero Repair	AR
	Propulsion	PR
Propulsion Flight	Propulsion	PR
AGE Flight	Aerospace Ground Equipment	AG
Avionics Flight	Com/Nav	CN
	Munitions	MU
	Electronic Warfare	EW
	Guidance & Control	GC
Fabrication Flight	Metals Tech/Structures	MT
	NDI	ND
	Flight Line	FL
AMXS	Flight Line	FL
MOF	Maintenance Operations Flight	MF
MXG	Quality Assurance	SP
357 AS	Pilot/Navigator Section	OP
	Load Master Section	LM
	Flight Engineer Section	FE
	Flight Equipment	SE
OSS	Flight Equipment	SE
25 APS	Aerial Port	AP